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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:	:	
Isabelle AFRIAT	:	EXAMINER: JIANG
SERIAL NO.: 09/884,949	:	
FILED: JUNE 21, 2001	:	GROUP ART UNIT: 1617

FOR: COMPOSITION IN THE FORM OF A WATER-IN-OIL EMULSION WITH A VARIABLE SHEAR RATE AND METHODS OF USING THE SAME

DECLARATION UNDER 37 C.F.R. 1.132

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

I, Veronique CHEVALIER, hereby declare:

1. I am employed by L=ORÉAL as an engineer and have experience in the field of emulsions, particularly water-in-oil (W/O) emulsions, and their use in cosmetic and/or dermatological compositions.

2. I have been asked to discuss and explain "cycle stability" in the context of the present application.

3. The present application states the following about cycle stability:

> A thermal storage cycle consists of subjecting the composition to several successive temperatures. Thus, the composition is maintained for a certain time

> (for example for 6 hours) at room temperature (about +20 °C) and then, over the same amount of time (*i.e.*, 6 hours), the temperature is reduced to about -20 °C and the composition is left at this temperature of -20 °C for the same amount of time again (*i.e.*, 6 hours), the temperature is then returned to room temperature (+20 °C) for the same amount of time (6 hours), and this process is repeated several times (generally 5 times). This passage through different temperatures makes it possible to test the full stability of a composition.

(Specification at page 2, line 24 through page 3, line 9). The application also contains examples (at pages 11-13) in which the cycle stability of the invention compositions is compared to the cycle stability of comparative compositions.

4. In these examples, an invention composition and two comparative compositions are identical except that the invention composition contains KF-6015, which is a dimethicone copolyol in which the only oxyalkylene groups are oxyethylene groups, while the comparative examples contain dimethicone copolyols in which the oxyalkylene groups are both oxyethylene groups and oxypropylene groups. Specifically, comparative example 1 contains DC 2-5185 (which contains 18 oxyethylene groups and 18 oxypropylene groups – a 50:50 ratio), while comparative example 2 contains Silwet FZ-2108 (which contains oxyethylene groups and oxypropylene groups in a 33:67 ratio). (See, specification at 13).

5. All three compositions were subjected to the following conditions: 6 hours at +20 °C, 6 hours to go down to -20 °C, 6 hours at -20 °C, 6 hours to return to +20 °C. This cycle was repeated five times, over the course of five days. (See, specification at 12).

6. The results of this cycle stability testing were as follows: the invention composition containing KF-6015 had good cycle stability over the 5 day test period. However, comparative example 1 containing DC 2-5185 destabilized after 2 days of testing. This destabilization manifested itself through the appearance of oil droplets on

the surface of the composition. Similarly, comparative example 2 containing Silwet FZ-2108 destabilized after 2 days. This destabilization manifested itself through phase separation. Thus, only the invention composition containing a dimethicone copolyol in which the only oxyalkylene groups are oxyethylene groups possessed good cycle stability over the entire 5 day period. (See, specification at 13).

7. The results obtained with the invention composition are representative of the present invention. That is, I would expect compositions defined by the following claim to possess similar cycle stability characteristics as those of the exemplified invention composition:

> 1. A water-in-oil emulsion, comprising an aqueous phase dispersed in an oily phase with the aid of a silicone emulsifier, wherein:
> (1) said aqueous phase is present in an amount of at least 80% by weight relative to the total weight of said water-in-oil emulsion;
> (2) said oily phase and said emulsifier are present in a weight ratio of said oily phase to said emulsifier greater than or equal to 5; and
> (3) said emulsifier is a dimethicone copolyol in which the only oxyalkylene groups are oxyethylene groups.

I have no reason to expect otherwise.

8. In view of the above, it is clear that dimethicone copolyols in which the oxyalkylene groups are both oxyethylene and oxypropylene groups are not interchangeable with the claimed dimethicone copolyols in which the only oxyalkylene groups are oxyethylene groups for purposes of the present invention. Dimethicone copolyols in which the only oxyalkylene groups are oxyethylene groups yield cycle stable compositions. The other dimethicone copolyols do not. This difference in stability between the two types of dimethicone copolyols was unexpected and surprising.

9. That the invention compositions are cycle stable is commercially significant. For example, compositions which are cycle stable are more easily transported and stored

than temperature-sensitive, non-cycle stable compositions, particularly given the temperature fluctuations to which commercial products can be subjected during the distribution and storage process. Accordingly, commercial distribution and storage of the invention compositions should be more efficient and less costly than distribution/storage of non-cycle stable compositions because fewer of such compositions should be destabilized during transport and storage.

10. The undersigned petitioner declares further that all statements made herein of her own knowledge are true and that all statements made on information and belief are believe to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

11. Further deponent sayeth not.

Chevalier véronique
Name

Chevalier Véronique V. Chev
Signature

21th of July 2005
Date